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Appl. No.: 10/632,359

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## Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Please cancel claims 1-2, 5-7, 9, 11, 13-16 and 18-19 without prejudice.

## Listing of Claims:

## 1-2. (Cancelled)

3. (Previously presented) A motion encoder for determining rotational movement of a rotatable member comprising:

an element providing multiple sets of electromagnetic radiation transmissions, each set comprising a plurality of areas having respectively different electromagnetic radiation transmission characteristics for onward transmission of electromagnetic radiation, the areas being arranged to provide a directionally unique sequence of transmission characteristics along a path traced on rotation of the rotatable member, and wherein the sets form multiple repetitive sequences about the element;

a source of electromagnetic radiation for directing the radiation towards the element;

a detector for sensing the onward transmission of the electromagnetic radiation from the element,

wherein the detector is located for rotation with the rotatable member.

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4. (Previously presented) A motion encoder for determining rotational movement of a rotatable member comprising:

an element providing multiple sets of electromagnetic radiation transmissions, each set comprising a plurality of areas having respectively different electromagnetic radiation transmission characteristics for onward transmission of electromagnetic radiation, the areas being arranged to provide a directionally unique sequence of transmission characteristics along a path traced on rotation of the rotatable member, and wherein the sets form multiple repetitive sequences about the element;

- a source of electromagnetic radiation for directing the radiation towards the element;
- a detector for sensing the onward transmission of the electromagnetic radiation from the element,

wherein the source is located for rotation with the rotatable member.

## 5-16. (Cancelled)

- 17. (Currently amended) A motion encoder comprising:
  - a source of electromagnetic radiation;
  - a detector for sensing electromagnetic radiation; and
  - a rotatable member located in a path between the source and the detector, wherein the rotatable member comprises multiple sets of electromagnetic radiation transmissions, each set comprising a plurality of electromagnetic

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affecting surfaces having respectively radiation opacities electromagnetic radiation different to affecting characteristics for affecting transmission of electromagnetic radiation from the source to the detector into respective different amounts of electromagnetic radiation, wherein the surfaces are arranged to provide a transmission of directionally unique sequence characteristics along the path when the rotatable member is rotated, and wherein the sets form multiple repetitive sequences about the element.

18-19. (Cancelled)